patent pending

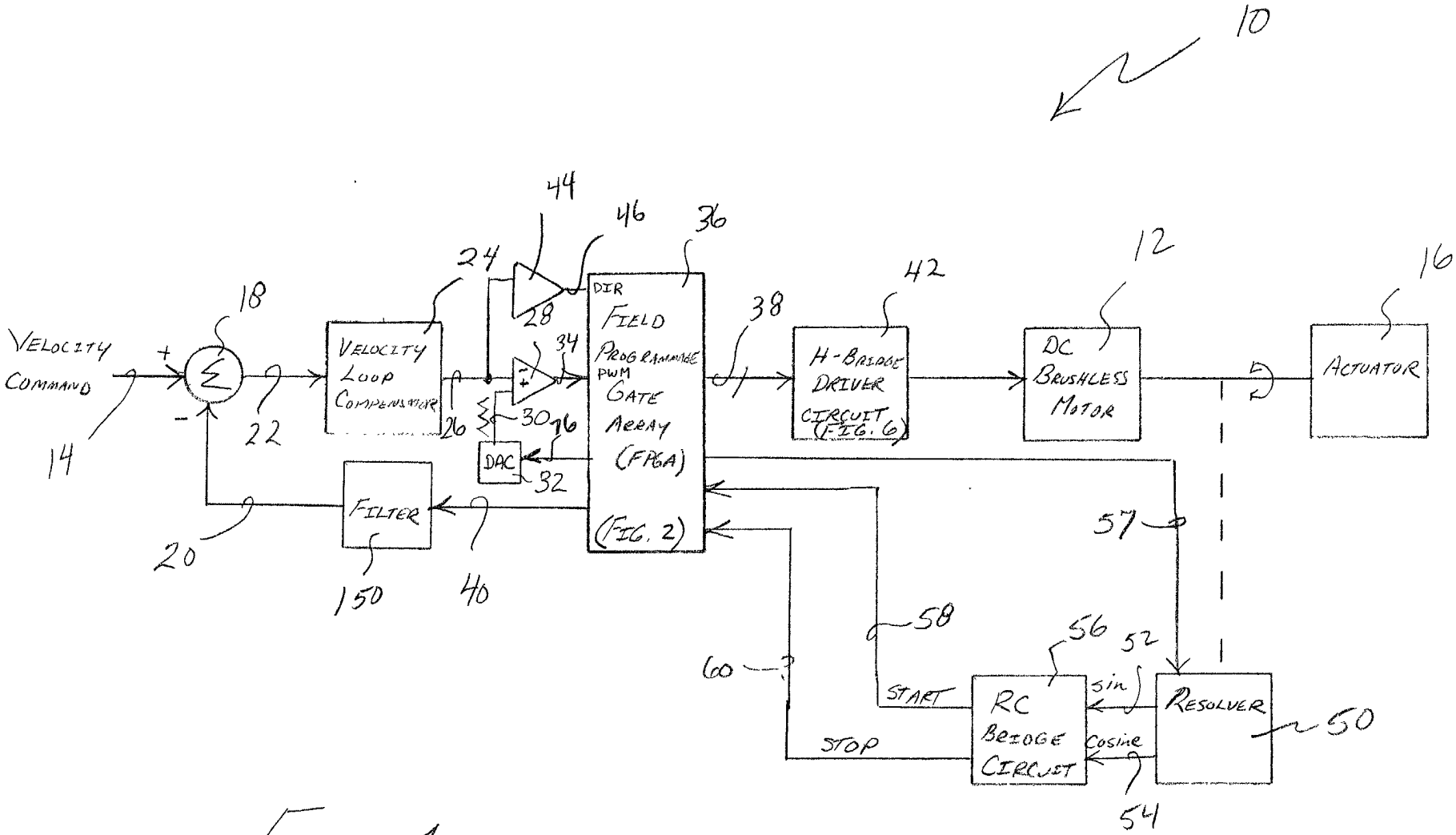

FIG. 1

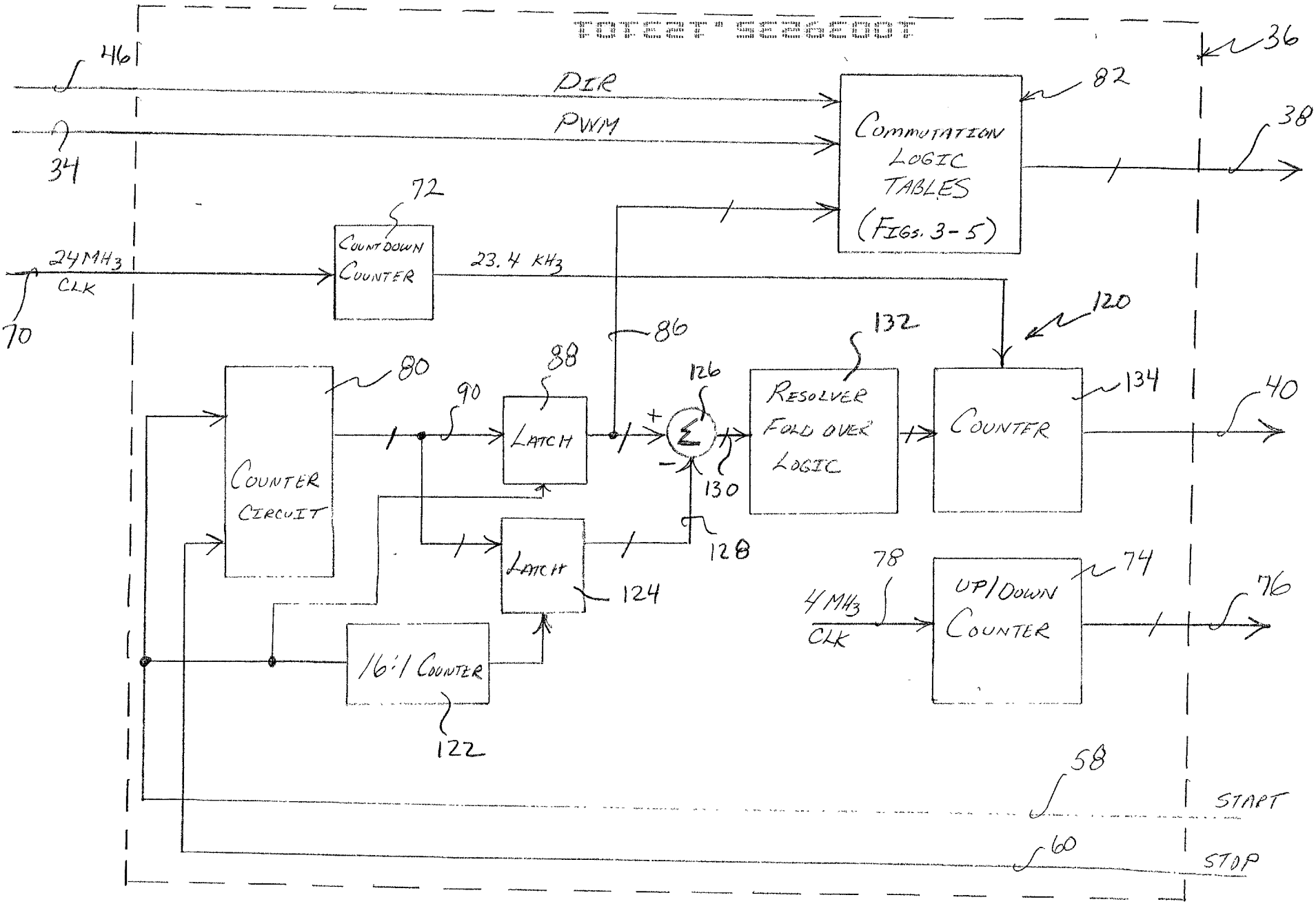
46
DIR
PWM
34
82
COMMUTATION LOGIC TABLES (FIGS. 3-5)
36
38
72
COUNTDOWN COUNTER
24 MH3 CLK
70
23.4 KH3
120
86
132
80
88
126
90
RESOLVER FOLD OVER LOGIC
134
COUNTER
40
COUNTER CIRCUIT
LATCH
130
LATCH
124
128
78
74
4 MH3 CLK
UP/DOWN COUNTER
76
16:1 COUNTER
122
58
START
60
STOP

FIG. 2

CASE:

PWM =1

DIR =1

82

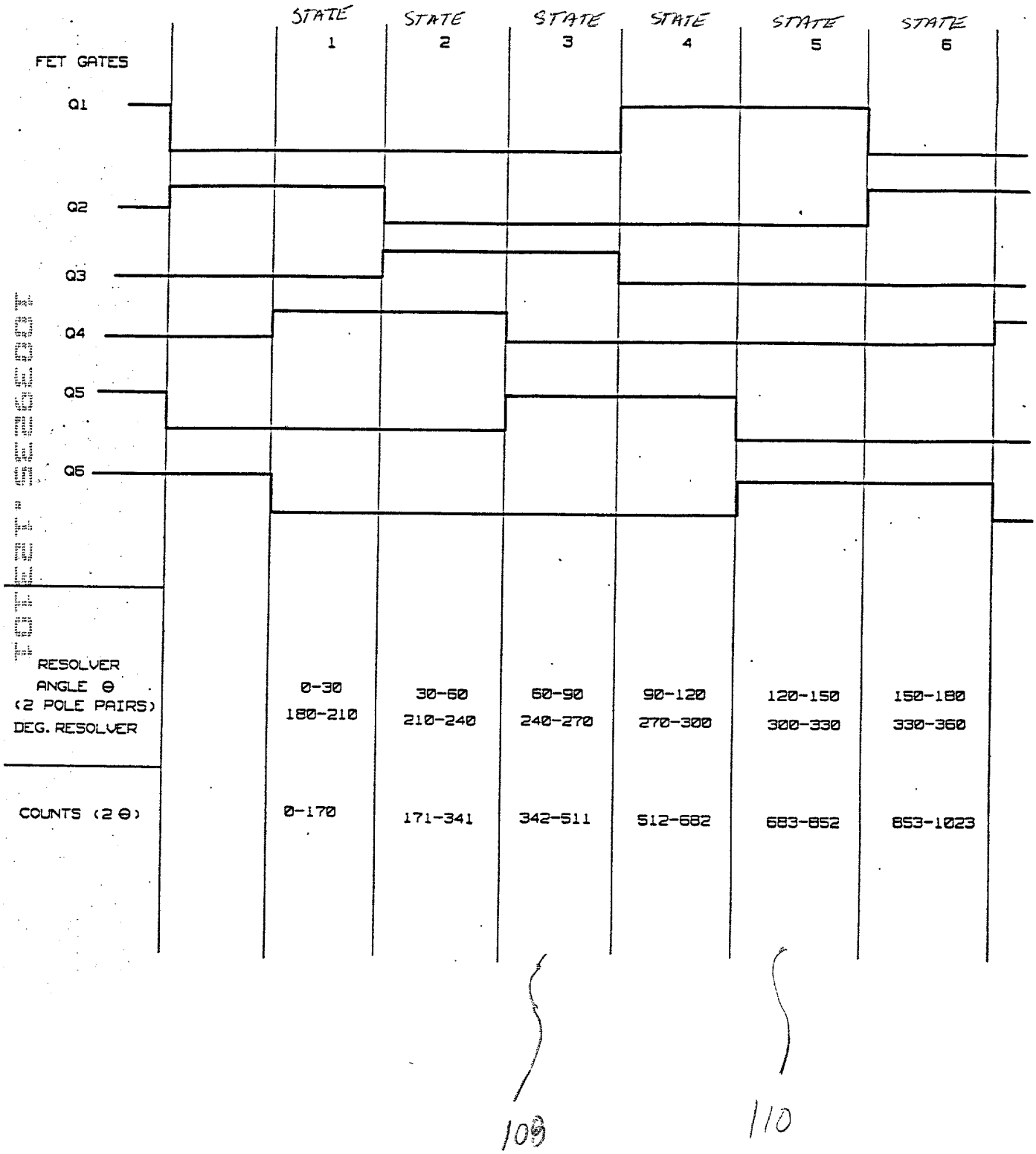

FIG. 3

CASE:

PWM =1

DIR =0

82

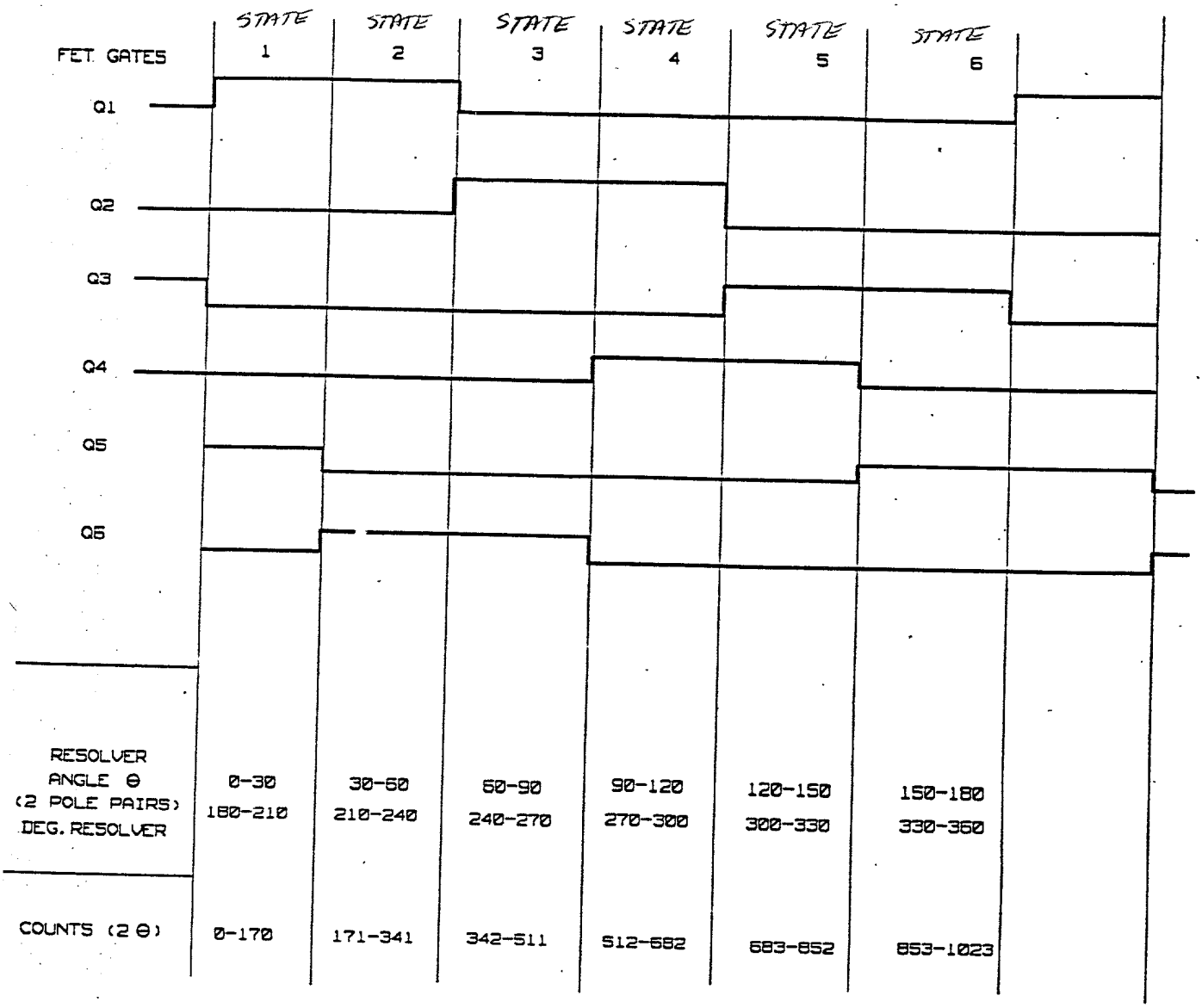

FIG. 4

CASE:

PWM =0

DIR =Don't care

82

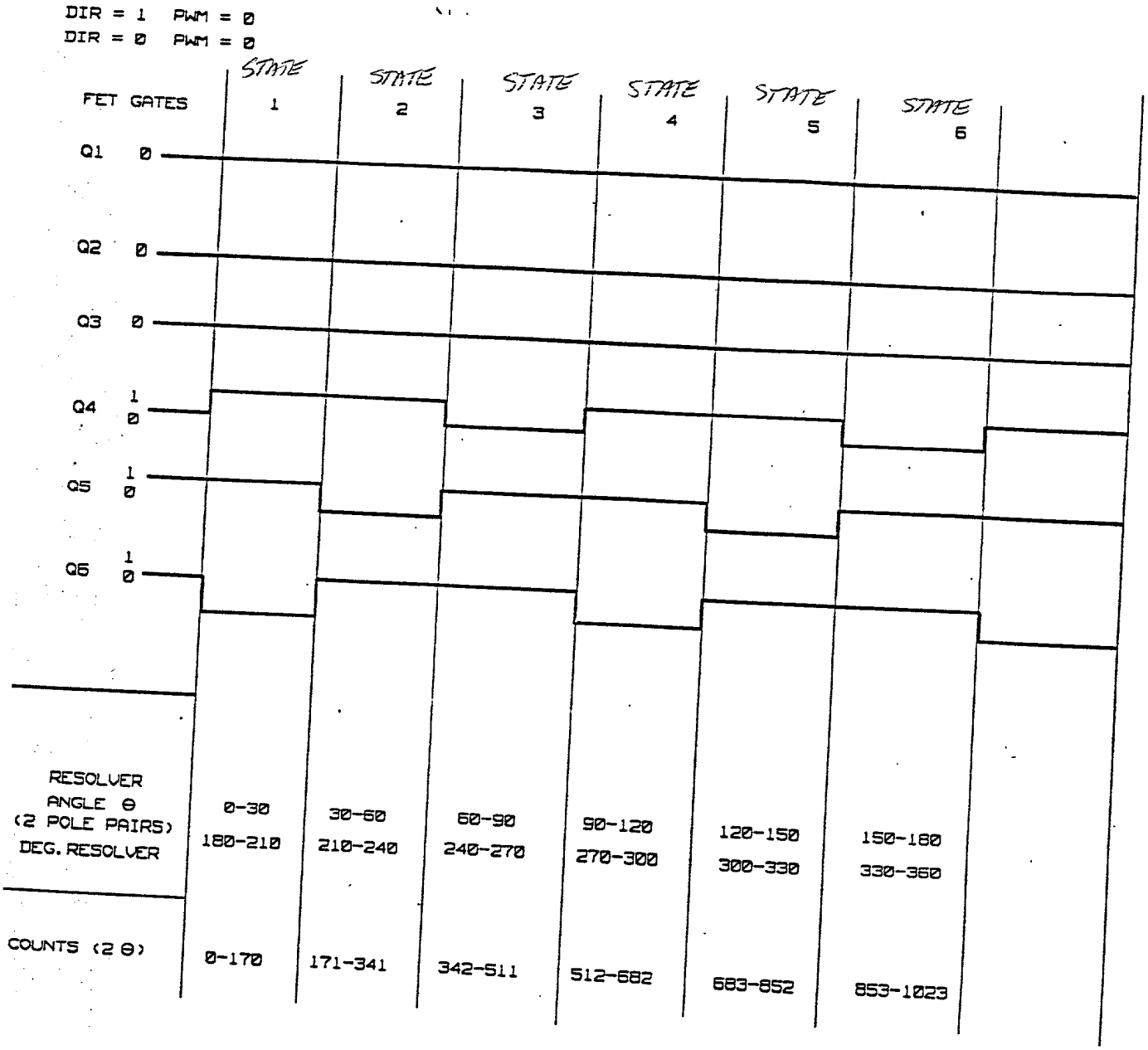

FIG. 5

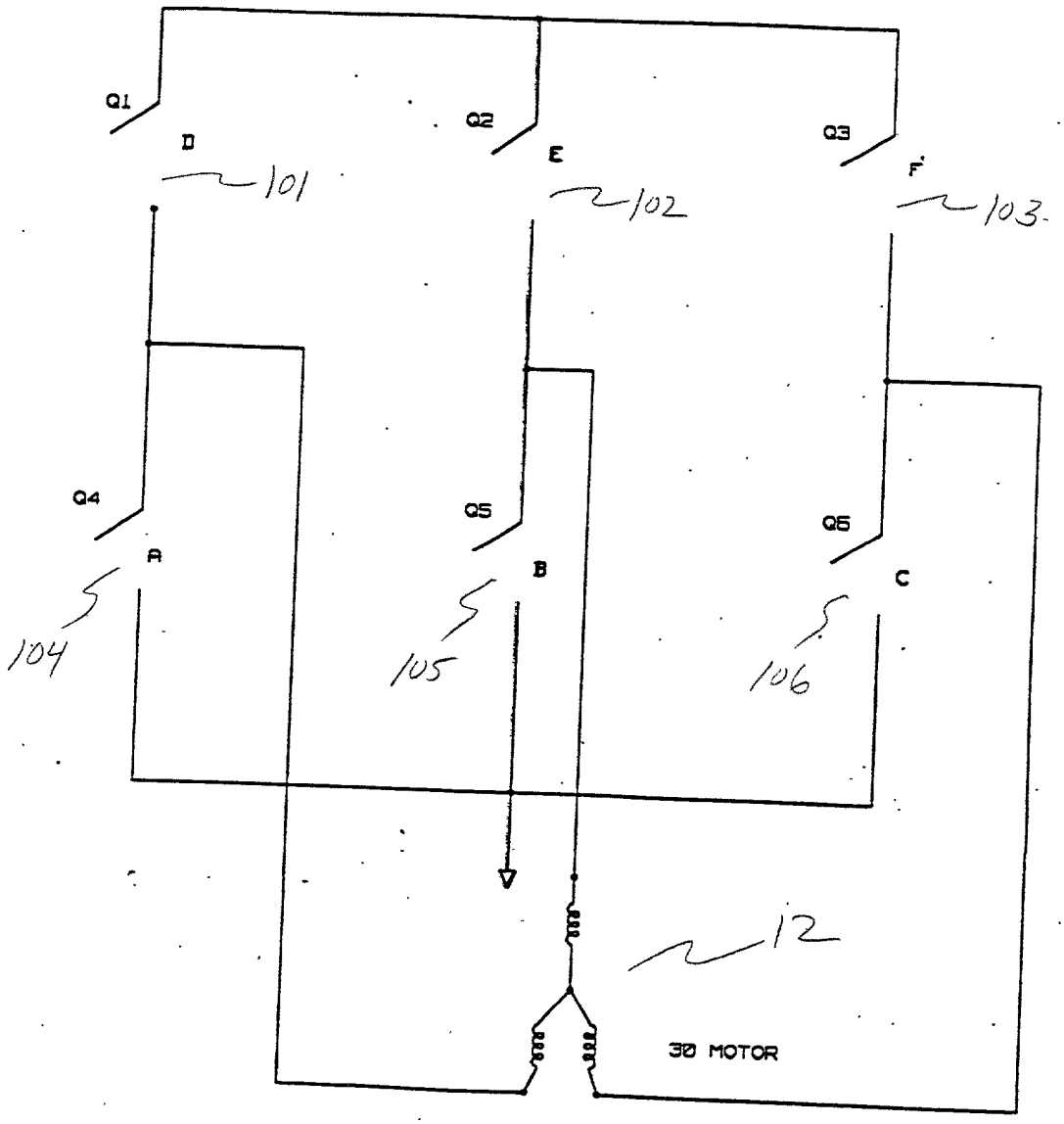

FIG. 6

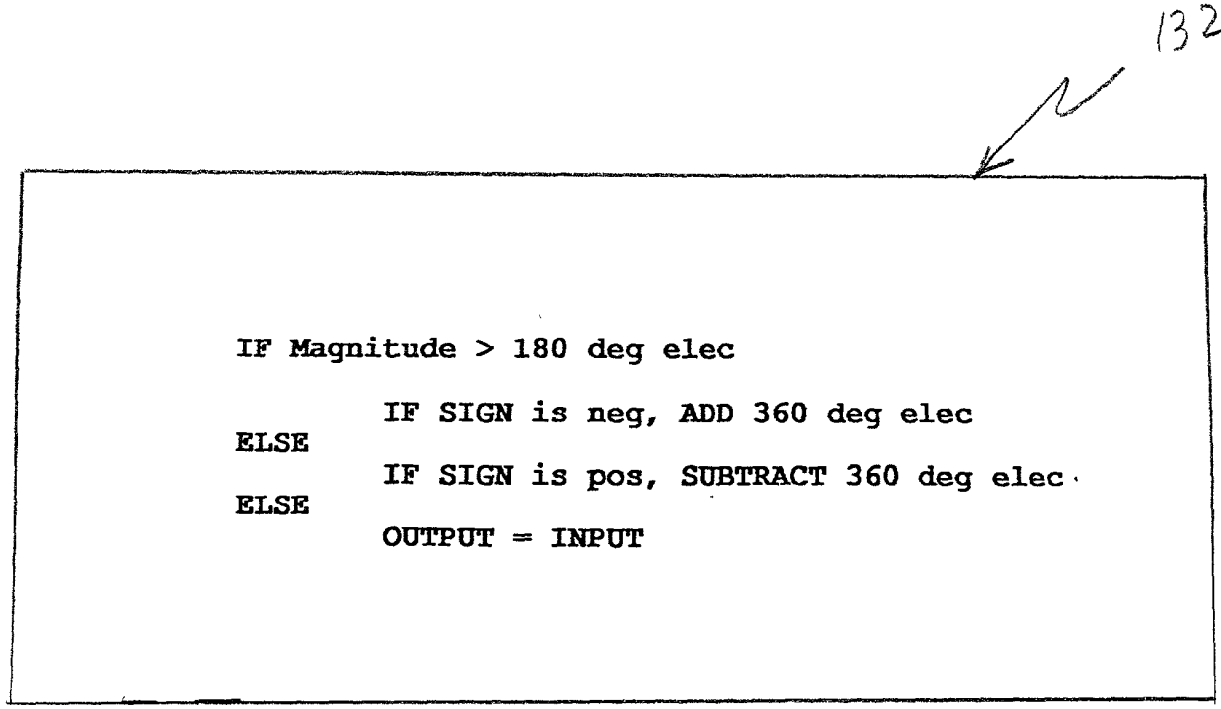
132
IF Magnitude > 180 deg elec
IF SIGN is neg, ADD 360 deg elec
ELSE
IF SIGN is pos, SUBTRACT 360 deg elec
ELSE
OUTPUT = INPUT

FIG. 7